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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,130	07/09/2003	Shinji Mori	740165-353	4490

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EXAMINER	
KIM, SANG K	

ART UNIT	PAPER NUMBER
3654	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/623,130	MORI ET AL.	
	Examiner	Art Unit	
	SANG KIM	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/17/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Terminal Disclaimer

The terminal disclaimer filed on 7/7/05 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6857594 B2 has been reviewed and is NOT accepted.

The application/patent which forms the basis for the double patenting rejection is not identified in the terminal disclaimer.

It should be noted that applicant is not required to pay another disclaimer fee as set forth in 37 CFR 1.20(d) when submitting a replacement or supplemental terminal disclaimer.

If multiple conflicting patents and/or pending applications are applied in double patenting rejections made in a single application, then prior to issuance of that application, it is necessary to disclaim each one of the conflicting double patenting references applied, rather than disclaiming only the conflicting double patenting reference with the earliest issue date (assuming at least one of the references is a patent). A terminal disclaimer fee is required for each terminal disclaimer filed. To avoid paying multiple terminal disclaimer fees, a single terminal disclaimer may be filed, wherein all the conflicting double patenting references are disclaimed therein. Disclaiming each one of the conflicting double patenting references is necessary to avoid the problem of dual ownership of patents to patentably indistinct inventions in the event that the patent issuing from the application being examined ceases to be commonly owned with any one of the double patenting references that have issued or may issue as a patent. Note that 37 CFR 1.321(c)(3) requires that a terminal disclaimer

"[i]nclude aprovision that any patent granted on that application or any patent subject to the reexamination proceeding shall be enforceable only for and during such period that said patent is commonly owned with the application or patent which formed the basis for the rejection."

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1, 11 and 21, the phrase, "connecting members reliably meshes with said plurality of teeth," is indefinite and vague. What constitutes reliably meshing with the teeth?

The term "substantially" in claims 1 and 23 is a relative term which renders the claims indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What is applicant referring to when connecting members are substantially different than a number?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Fohl, U.S. Patent No. 5918717.

With respect to claim 1, Fohl '717 shows a webbing retractor device for seat belt winding around a take-up shaft (col. 2, line 33, discloses a belt reel, which by definition includes a take-up shaft around which material is wound); an input gear (34) connected to the take-up shaft (via 16 and 16a, col. 2, line 32), a plurality of teeth formed along a periphery of the input gear at uniform intervals (34); a prime mover rotating body (14) receiving driving force from a drive source (a gas from an inlet 20) to rotate; and a plurality of connecting members (32) for transmitting rotation of the prime mover rotating body (14) to the input gear (34). The plurality of connecting members (32) rotate around the input gear (34) and each of the connecting members (32) has a meshing portion (i.e., engaging parts) that is capable of contacting and moving away from the input gear (34),

Wherein, a state in which at least two of said uniformly angularly spaced connecting members (32, i.e., uniformly angularly spaced in 120 degrees from each other) contact the input gear (34), a distance, along a direction of rotation of the input gear, between two meshing portions of the at least two connecting members (32) is different than a number which is an integer multiple of a pitch of the plurality of teeth

(teeth of 34) such that one of said at least two connecting members (32) meshes with said plurality of teeth (teeth of 34), see figures 1-8.

With respect to claim 2, Fohl '717 shows the prime mover rotating body (14) is driven and rotated at greater than a predetermined speed (i.e., activated by the pyrotechnical material), the plurality of connecting members (32) are moved to contact the meshing portions of the input gear (teeth of 34).

With respect to claims 4-5, Fohl '717 shows the plurality of connecting members (32) are held at the prime mover rotating body (14) and the prime mover rotating body is pivotally supported (28) so as to be coaxial with the input gear 34), see figure 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 9-10 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fohl, U.S. Patent No. 5918717.

With respect to claims 3 and 21-23, as advanced above, Fohl '717 shows the connecting members (32) are meshed with the input gear (34), the meshing portion of the connecting members are less than that of the pitch of the plurality teeth with an even number of teeth, see figures 1-3.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the input gear with an odd number of teeth to help rotate the shaft faster and prevent jam by allowing the pawls to engage less number of teeth.

With respect to claims 9-10, as advanced above, Fohl '717 teaches an electric activation sensor (see col. 3, lines 36-40, i.e. a control unit) controlling operation of the drive source (i.e. a pyrotechnical) caused by abrupt acceleration.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the sensor to detect the distance or deceleration, since the sensors in the seat belt industry are not limited to detecting acceleration, deceleration, or distance. Using a sensor to detect the distance or deceleration is another method of activating the seat belt and providing cost effectiveness when building a car.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/615388. Although the conflicting claims are not identical, they are not patentably distinct from each other because all the limitations of this application are obviously encompassed in claims 1-20 of copending application No. 10/615388, the claims differing only in insubstantial wording and language changes.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 6-8 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 12-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The claims are patentable over the prior art of record because the teachings of the references taken as a whole do not show or render obvious the combination set forth in claim 11, including all the structural limitations set forth in the claim and wherein

said input gear has an odd number of teeth such that the odd number of teeth causes at least one of the meshing portions of a connecting member abuts a tooth of the input gear, and at the same time, the meshing portion of at least another one of the connecting member does not abut a tooth of the input gear so that at least one of said plurality of connecting members meshes with said teeth due to the odd number of teeth of the input gear. The prior art of record shows all the references engaging the teeth engaging or disengaging all at once simultaneously.

Response to Arguments

Claims 1, 11 and 21 have been amended.

Applicant's arguments filed 7/7/05 have been fully considered but they are not persuasive with respect to claims 1-5, 9-10 and 21-23.

Applicant argues that Fohl '717 fails to teach the amended claims. According to applicant, Fohl '717 fails to teach uniformly angularly spaced connecting members as recited in claims 1 and 21. Applicant asserts that Fohl's pawls 32 are arranged in an angularly asymmetrical pattern around the disk. Claim 1 recites, "a plurality of connecting members mounted at uniform angular distances around the input gear."

Fohl '717 shows the pawls 32 are arranged circumferentially around the disk and separated from each other in 120 degrees. Each pawl is mounted and equally spaced out with respect to each other in an uniform angular distance. As stated above, Fohl '717 shows "a plurality of connecting members 32 mounted at uniform angular distances

(i.e., uniformly angularly spaced in 120 degrees from each other) around the input gear 34."

Applicant's arguments with respect to claims 21-23 have been considered but are moot in view of the new ground(s) of rejection.

The added recitation that the input gear has an odd number necessitated the new grounds of rejection with respect to claims 21-23.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG KIM whose telephone number is 571-272-6947.

The examiner can normally be reached Monday through Friday from 8:00 A.M. to 5:30 P.M. alternating Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki, can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SK

9/9/05

Kathy Matecki

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